

REMARKS

Reconsideration of the application is requested.

Claims 1-92 remain in the application. Claims 1, 11, 15-21, 24, 34, 39, 40, 42-44, and 47-92 have been amended.

In item 1 on page 2 of the above-identified Office Action, the Examiner objected to the drawings of the above-identified application under 37 C.F.R. 1.83(a). Specifically, the Examiner states that in claims 1, 24, 47, and 70, "the 'transmitting...' the 'region defining a given time slot', the 'specific information', the 'settings selected from the group consisting of...' all must be shown in the drawings", and that in claims 2-7, 9-23, 25-30, 32-46, 48-53, 55-69, and 71-92 "each and every recited feature is not shown in the drawings."

With respect to claims 1-7, 9-30, and 32-46, the Examiner has objected to either method steps or workpiece background, which are not required to be shown in the drawings. With respect to claims 47-53, 55-69, and 71-92, applicants respectfully submit that each and every recited feature required to be shown in the drawings, is shown in drawings. Devices are shown connected to a bus in FIG. 1. The devices are designated by the reference symbols N1, N2, ... Nn, and

the bus interconnecting these devices is designated by the reference symbol BUS. Furthermore, Fig. 2 shows an exemplary embodiment of the format of a message or of a frame, which is used to transmit data and information. Fig. 2 is fully explained on page 16, line 10 through page 18, line 22.

It is therefore believed that the drawings meet all of the requirements of 37 C.F.R. 1.83(a).

In item 2 on page 2 of the above-identified Office Action, the Examiner objected to the specification of the above-identified application. More specifically, the Examiner states that "the title of the invention is not descriptive."

Applicants respectfully disagree with the Examiners conclusion. The present invention is, as the title states, a method of transmitting data between devices connected via a bus, and a device for connection to other devices via a bus, which is described clearly in the title: METHOD OF TRANSMITTING DATA BETWEEN DEVICES CONNECTED VIA A BUS, AND DEVICE FOR CONNECTION TO OTHER DEVICES VIA A BUS.

It is therefore believed that the title of the present invention is clearly indicative of the invention to which the claims are directed and no amendment is necessary.

In item 3 on page 3 of the above-identified Office Action, claims 1, 24, 47, and 70 have been rejected as being indefinite under 35 U.S.C. § 112, first paragraph. More specifically, the Examiner states that "the method and apparatus for forming the units, and for defining or determining settings has no basis for enablement in the specification."

Applicants respectfully disagree with the Examiner's conclusion. As stated in the paragraph, beginning on page 16, line 9, the bus BUS is configured for a transmission of data which takes place sequentially on a bit-by-bit basis. The paragraph beginning on page 12, line 15 of the specification of the instant application explains that the devices communicate via the bus and that the bus is supplied on a standard basis with a potential which represents the level 0 and is changed to a different potential "only" if a bit having the level 1 is to be transmitted via the bus. As further stated in the same paragraph, continuing on page 16, the preassignment of a potential representing a specific level to the bus is carried out using pull-down resistors or pull-up resistors, which can be provided on devices connected to the bus, or elsewhere.

Devices which can detect differences in potential on a bus are well known in the art. Furthermore, devices that can receive a series of signals, varying in potential, and can interpret the series of signals to define instructions are also well known in the art. It is accordingly believed that the specification and the claims meet the requirements of 35 U.S.C. § 112, first paragraph.

In item 4 on page 4 of the above-identified Office Action, claims 1, 3, 11, 15-17, 19-21, 24, 26, 34, 38-40, 43-44, and 46-92 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

Claims 1, 11, 15-21, 24, 34, 39, 40, 42-44, and 47-92 have been amended. The claims now clearly differentiate between data and information and clearly recite the features and functions of all claim elements recited. Support for these changes may be found on page 8, line 9 through page 9, line 25, as well as throughout the specification of the instant application. The claims have also been amended to remove the phrase "devices transmitting no data" and, instead, the differentiation of "second" devices and "third" devices has been introduced into the claims and supporting specification, thereby clarifying which types of devices transmit data and which devices do not. Support for these changes can be found

on page 25, line 4 through page 26, line 15. It is believed that the amendments to claims 1, 11, 15-21, 24, 34, 39, 40, 42-44, and 47-92 overcome the Examiner's rejections.

With regard to the Examiner's rejection of claims 3, 26, 49, and 72, the Examiner states that "'with one or more devices' is unclear, because it is not clear what relationship is intended to the determining."

Applicants respectfully disagree with the Examiner's conclusion that "with one or more devices" is unclear. Claim one describes **a device** communicating to **"one or more second devices...and/or one or more third devices..."** Logically, with respect to the recitations of claim 1, a reference to "devices" indicates both "a device" and "one or more second devices" and "one or more third devices." In other words, all devices connected to the bus. Claim 3, which depends from claim 1, recites determining **"settings with one or more of the devices connected to the bus."** Thus, determining settings with "a device" or with "one or more second devices and/or one or more third devices" is identified. This step is fully supported on page 18 of the instant application, in the paragraph beginning on line 24, which explains that settings, which determine which device has to output which information onto the bus at which point in time, are

preferably made in the respective devices themselves. As a result, the respective devices can output onto the bus independently, i.e., without triggering or authorization by the device controlling the bus allocation or by some other device, the data to be output by them onto the bus, and can do this at the correct time. Furthermore, the paragraph beginning on page 19, line 7 states that the corresponding settings in the **devices connected to the bus** are expediently made before the start of the transmission of the frame or message which contains the reply field, preferably at the time of initialization of the system which takes place for example after the system is switched on.

For at least the same reasons claim 3 is allowable, it is also believed claims 26, 49, and 72, which are similar to claim 3, are also allowable.

With regard to claim 46, the Examiner has stated that the claim "recites redundant structure." Applicants respectfully disagree with the Examiner's conclusion. Contrary to the examiner's quote of claim 46, "of a specific preceding frame" only appears once in the claim. Claim 46 recites a preceding "**frame**" and a preceding "**message**", which are not the same structure. As stated in the paragraph, beginning on page 20, line 12, of the instant application, "the settings are made

in such a way that the content of the current frame **or of a specific preceding frame** or the content of the current message **or of a specific preceding message**, in particular the receivers of the frame or message which is specified in it is made to determine which device has to output which information onto the bus at which point in time. **There is thus a frame-specific or message-specific use of the reply field.**" Frames are further explained in claim 8, which states "the units for transmitting the data and the information concerning the transmission or the use of the data are frames." It is therefore believed that claim 46 does not recite redundant structure.

It is accordingly believed that the specification and the claims meet the requirements of 35 U.S.C. § 112, second paragraph. The above noted changes to the claims are provided solely for the purpose of satisfying the requirements of 35 U.S.C. § 112. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claim for any reason related to the statutory requirements for a patent.

In item 5 on page 6 of the above-identified Office Action, claims 46-69 and 71-92 have been rejected as being directed to non-statutory subject matter under 35 U.S.C. § 101.

Claims 48-92 have been amended to recite only apparatus or only method step limitations.

It is accordingly believed that the claims now meet the requirements of 35 U.S.C. § 101.

In item 6 on page 7 of the above-identified Office Action, claims 1-6, 8-29, 31-51, 53-74, and 76-92 have been rejected as being fully anticipated by Deng (U.S. Patent No. 6,347,097) under 35 U.S.C. § 102.

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. However, it is believed that the claims were patentable over the cited art in their original form and, therefore, the claims have not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Amended claim 1 calls for:

A method of transmitting data between devices interconnected via a bus, which comprises:

transmitting, in units, data and **information, concerning at least one of a transmission and a use of the data**, from a first device to one or more second devices to which the data does not concern, and/or one or more third devices, to which the data does concern, together;

forming the units at least partly with **at least one region defining a given time slot within which the second and/or third devices can output onto the bus specific information; and**

defining, in the second and third devices, **enabled for outputting data** within the given time slot, settings selected from the group consisting of a setting to determine under which conditions information and/or data are to be output within the given time slot, a setting to determine which information and/or data are to be output within the given time slot, and a setting to determine at which points in time within the time slot the information and/or data are to be output.

The Deng reference discloses a method and apparatus for buffering received packetized data from a serial bus. The initiation of receipt of a given packet of data is first recognized, and then storage thereof initiated by storing the received data from the packet in a first packet data storage location in a FIFO. Subsequent received data is then stored in additional packet data storage locations in the FIFO as they are received. **The end of a given packet data** is then recognized and, after this event, a packet token is generated. The packet token contains **information as to the packet data storage locations within the FIFO** associated with the packet data. This packet data token is stored in the FIFO

in such a manner that, upon reading a packet of data by a host system from the FIFO, the packet token will be read first to provide information to the host system as to the packet data storage locations of the remaining data in the stored packet. (col. 2, lines 31-44).

Deng does not show transmitting data together with information concerning at least one of a transmission and a use of the data; forming the units with at least one region defining a given time slot within which the one or more second devices can output onto the bus specific transmission and/or use information and/or data; and defining, in one or more second devices enabled for outputting data within the given time slot, settings, as recited in claims 1, 24, 47, and 70 of the instant application.

It is accordingly believed to be clear that the Deng reference does not show or suggest the features of claims 1, 24, 47, and 70. Claims 1, 24, 47, and 70 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 1, 24, 47, and 70.

In item 7 on page 11 of the above-identified Office Action, claims 7, 30, 52, and 75 have been rejected as being obvious

over Deng (U.S. Patent No. 6,347,097) in view of Levy (U.S. Patent No. 6,212,633) under 35 U.S.C. § 103.

Considering the above-mentioned deficiencies of the Deng reference with regard to independent claims 1, 24, 47, and 70, and the fact that claims 7, 30, 52, and 75 ultimately depend on claims 1, 24, 47, and 70, it is believed not to be necessary at this stage to address the secondary Levy reference applied in the rejection of claims 7, 30, 52, and 75, and whether or not there is sufficient suggestion or motivation with a reasonable expectation of success for modifying or combining the references as required by MPEP § 2143.

In view of the foregoing, reconsideration and allowance of claims 1-92 is solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section

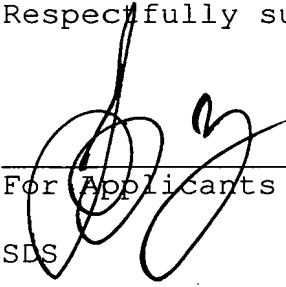
Appl. No. 09/885,117
Amdt. Dated February 19, 2004
Reply to Office Action of November 12, 2003

1.136(a) in the amount of \$110.00 in accordance with Section
1.17 is enclosed herewith.

Please charge any other fees that might be due with respect
to Sections 1.16 and 1.17 to the Deposit Account of Lerner
and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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For Applicants

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